DOCUMENT RESUME

ED 404 216 SO 024 451

TITLE	Report of the International Commission on Education for the Twenty-First Century, Fourth Session (Vancouver, British Columbia, Canada, April 13-15, 1994).
INSTITUTION	International Commission on Education for the Twenty-First Century (UNESCO), Paris (France).
REPORT NO	EDC/6
PUB DATE	May 94
NOTE	18p.; For related items, see SO 024 394-407 and SO 024 448-454.
AVAILABLE FROM	Secretariat, UNESCO, 7 Place de Fontenoy, 75352 Paris 07 SP, France; fax: 014-306-4678; phone: 014-568-4876.
PUB TYPE	Reports - Descriptive (141) -- Speeches/Conference Papers (150)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	Decision Making; *Educational Planning; Elementary Secondary Education; Foreign Countries; *Futures (of Society); Higher Education; International Cooperation; International Educational Exchange; Mass Media Role; *Multicultural Education; Science and Society; *Teacher Education; *Teacher Role
IDENTIFIERS	Canada

ABSTRACT

This session of the International Commission on Education for the Twenty-First Century was preceded by a 2-day working group on the processes of education. The Commission also held an afternoon of hearings that included an in-depth exchange between Canadian educational leaders and the Commission members on a wide range of topics that included multiculturalism, diversity in education, the relationship between formal and non-formal education, and developments in science and the science of learning and their influence on the organization and process of education. The summary of the debates and discussions is a synthesis of all these discussions. The exchanges were organized around three main themes: (1) educational processes and systems; (2) teachers' preparation and roles; and (3) lifelong learning. Given the location of the meeting, and the fact that the majority of participants in the working group came from either Canada or the United States, many issues reflected the situation in that part of the world. Nonetheless, considerations and proposals are framed so that they could be relevant to a broader setting. The paper discusses the definition and nature of a learning society. The section on teachers focuses on selection and training of teachers, status of teachers, expectations, and roles of teachers. The section on educational processes discusses: (1) methods, languages, and multiculturalism; (2) decision making; (3) educational technology; (4) lifelong education; and (5) mass media and violence in schools. World Bank issues and priorities in education are discussed. Appendices include the framework for discussion and a list of participants. (DK)

ED 404 216

EDC/6
May 1994

50

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Commission internationale sur l'éducation pour le vingt et unième siècle

International Commission on Education for the Twenty-first Century

Fourth Session
Vancouver (Canada) - 13 - 15 April 1994

REPORT

S0024451

UNESCO, Paris

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
F. ZANUTTINI
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

BEST COPY AVAILABLE

● **Président/*Chairman***: Jacques DELORS ● **Membres/*Members***: Isao AMAGI, Roberto CARNEIRO, Fay CHUNG, Bronislaw GEREMEK, William GORHAM, Aleksandra KORNHAUSER, Michael MANLEY, In'am MUFTI, Marisela PADRÓN Quero, Marie-Angélique SAVANÉ, Karan SINGH, Rodolfo STAVENHAGEN, Myong Won SUHR, ZHOU Nanzhao

May 1994

UNESCO

International Commission on Education for the Twenty-first Century

Working group on the process of education and Fourth Session of the Commission

Vancouver, Canada, 10 - 15 April 1994

Introduction

Organized in Vancouver, at the invitation of the Canadian Government and the Canadian Commission for UNESCO, and with their help, the plenary session of the Commission was preceded by a two-day working group (Annex 2) on the processes of education (10 - 11 April). The Commission also held an afternoon of hearings (12 April), at which several leading personalities were able to have an in-depth exchange with the Commission Members on a wide range of topics that included multiculturalism, diversity in education, the relationship between formal and non-formal education, and developments in science and the science of learning and their influence on the organization and process of education. The summary of the debates and discussions is a synthesis of all these discussions, discussions that were linked both in time and in sequence.

Organized around three main themes - educational processes and systems, teachers preparation and roles, and lifelong learning (Annex 1) - the exchanges were rich and constructive. Given the location of the meeting, and the fact that the majority of participants in the working group came from either Canada or the United States, it was natural that many issues and concerns reflected the situation in that part of the world; nonetheless, participants kept in mind the importance of framing considerations and proposals so that they could be relevant to a broader setting.

Moreover, it was also clear throughout that although there is, in the minds of many people involved in reflection on education, a world-wide convergence of the questions and problems surrounding education, a globalization of the issues as it were, the responses to those questions are necessarily local, and increasingly so. It is thus that this working group reaffirmed one of the central themes that has emerged in each of the meetings organized by the Commission: there is an interplay, and tension, between on the one hand globalization and integration of the forces and issues at work in the contemporary world, and on the other a reaffirmation of the necessity of diversity, the right to the maintenance of individual and group identity and the corresponding fragmentation of approaches and decisions.

I. A learning society

A constant point of reference, quite naturally, is the essential question that the Commission is addressing itself to: what kind of education do we want and need tomorrow? What kind of educational system, and what kinds of teachers are needed, and for what kinds of societies?

It seemed possible to extrapolate some trends with particular significance for education, trends that revealed both tensions and paradoxes that needed to be addressed.

In the first instance, one could point to a gradual, but highly significant change that has been taking place over the last several decades: the diminishing monopoly of schools over learning. Largely a result of developments in information and communication technology, there has been a gradual, but inexorable shift away from the school as the provider, storehouse and font of information and knowledge. Although the degree of the shift varies, it is taking place all over the world: children acquire, through television, radio, advertising, computer games, popular music, and so on, an increasing proportion of their information, beliefs, values, and attitudes, thus diminishing the influence and importance to them of what is taught in school. In addition, the provision, mainly in industrialized countries, of an increasing variety of educational services through commercial means has had a profound influence on out-of-school and adult education.

Thus, everywhere, the way in which children - and adults - are acquiring both information and attitudes is being profoundly influenced. No persons are more aware than teachers of the new pressures placed on schools as a result, of the new demands made on the competencies of teachers. With the loss of monopoly of the school over learning, teachers can feel under pressure to make school more appealing and competitive with television, for example. They also are obliged, even to become involved in a broad range of activities that are more related to social services than to education and learning as they are generally understood, and they often feel ill-prepared to carry out these tasks.

Simultaneously threat, challenge, and opportunity, the diversification of sources of learning and information tends to elicit one compelling response, which is the re-affirmation of the central importance of learning, in its noblest meaning, both today, and for the world of the twenty-first century. Learning, and education, cannot be seen or organized in a purely productivist fashion (along the industrial model, to quote several participants), but must be affirmed and reaffirmed as the principal goal of individual development. Thus, the powerful nature of the relationship between teacher and learner, the fundamental position of this relationship in society, was emphasized over and over again.

In order, then, to re-affirm, and to re-emphasize, the essential nature of learning to both individuals and societies, it is necessary to ensure that learning itself is viewed as important, and therefore that those who are responsible for organizing it enjoy the preparation and the roles essential for that. One is led to observe that the enduring functions of education are to link the learning of subjects, and the acquisition of knowledge, with the preparation for life in contemporary and future society. What are the qualities that education should help learners acquire? In addition to the basic knowledge and skills that come through literacy and numeracy, through understanding the past and present, and through acquaintance with the processes and results of science, one must have the capacity to anticipate and adapt to change, to be prepared for it and therefore to continue to learn throughout one's lifetime. This capacity needs to be accompanied by, or even depends on, individual autonomy, a sense of responsibility, respect and tolerance for others, the ability and desire to participate in society in a democratic fashion. Thus, skills and attitudes are inseparable, and must be learned together.

II. Teachers: selection, training, expectations and roles

A series of paradoxes, of tensions that underlie the teaching process, were at the heart of the discussions. The first of these was a contrast between the pressure for rapid change in education to respond to the changes in society, while maintaining benchmarks and poles of reference to which to anchor the processes of change.

The second concerns the dichotomy between a society of advanced technology where means of communication are widely available, and communication is easier, but in which individuals are increasingly isolated. The direct links between individuals, even between teachers and learners that are essential ingredients of human society, are more and more tenuous.

The third concerns the influence of time: where increase in the quality of educational materials and in physical conditions of work should free time for teachers to attend to their pupils, the demands for them to take care of an increasingly large number of administrative and evaluative tasks that are not directly part of the teaching process, seem to have made time a scarce commodity. In addition, the time slots imposed by mass media, mainly television, have changed the relationships within classroom, where teachers need to adapt to a world in which pupils spend more time with television than in school, but where each discrete piece of communication is measured in minutes or even seconds.

The fourth tension is between an increasing awareness of the interdependence of societies, nations and the world, and a growing dualism at each of these levels. More and more information is available, and relatively easily available, but those who cannot avail themselves of it, or are unequipped to profit from it, are left even further behind.

Corollary to, but not entirely related to the shift in the monopoly over education away from schools and teachers, is a generalized interrogation concerning the nature of the authority of teachers. This interrogation comes from both learners (i.e. pupils and students) and from teachers. When the teacher is no longer the main source of knowledge and information, outside the family, when he or she is not invested with the sacrosanct role of the master, the nature of the learning process and the relationship between teacher and taught is profoundly changed. And, yet, both learners and teachers see this function, of authority, of example, of source, if not of wisdom at least of response to the questioning of the learner about the nature and functions of the world, as an essential one, indeed the essential one, for learning to be complete and successful.

A. Selection and training of teachers

When there is no major shortage of teachers, as is the case in many industrialized countries, then policy makers can focus on how best to select among would-be teachers those who are most likely to be successful. In cases where there are not enough teachers, particularly where there is rapid expansion of one or another segment of the educational system, the issue is more one of how to recruit candidates, and then how best to train and motivate them.

Involving universities in teacher training was a preoccupation in the Third Session of the Commission, and was raised again. The quality of teachers is to a large extent a function of the quality of the education they receive, and when teachers are trained outside the mainstream higher education system, they miss invaluable contact with research and with colleagues working in specific disciplines. However, in the current model in North America, universities completely control the agenda on curriculum development and teacher training of teachers and on the development of curricula, an agenda that cascades down through the system, can disenfranchise teachers from active participation in basic decisions and reduces motivation in practice. Thus, there is a necessary equilibrium between broader participation and complete control by outside forces of teacher preparation.

An enduring issue, and one that did not escape the attention of this meeting, is how to attract to the teaching profession the best students, rather than – as some participants put it – those who fail to succeed in academic study or in specific subject areas.

The main recommendations concerned two related areas: first, professional mobility (of teachers, and for teachers into and out of teaching), and second, measures that could help break the isolation of teachers from each other and from the rest of society. Teachers, and future teachers, know that the chief reward of their profession is also its chief drawback. The fact of spending their working career with learners, in classrooms, is the main justification and the chief reward for becoming a teacher; and yet, the isolation, the inability to do other kinds of work or to communicate on a daily basis with their colleagues or to interact in broader society, are keenly felt.

Some of the most successful teachers are those who have been able to move, geographically, and into and out of other professions. Mobility can break isolation, can permit an enlargement of the professional and individual horizons, and can enrich the very teaching that results.

B. Status of teachers

The status of teachers is linked with a complex set of factors that change according to the circumstances but that all come into play: the initial and in-service training of teachers, their roles in decision-making about the organization and the content of learning, their mobility, their ability to be active participants in an integrated network of social services that in the community, and their behaviour as role models for the learners and for the community at large. Clearly, teachers are called upon to play expanding roles, roles that have the potential both of enhancing their influence and of attenuating the traditional, and crucial relationship between teacher and learner that is at the core of learning, and education.

The part played by collective negotiation and defense of teachers' rights, and by international agreements that protect these rights, was emphasized.

C. Roles of teachers

Competent, motivated teachers are essential for a healthy education system. Good teachers have an instrumental role, in the transmission of information and knowledge, but two complementary roles are at least as important for the first to be effective: teachers must be catalysts for learning, and they should also be role models for learners. As role models, they must themselves reveal the desire to seek answers, to solve problems, to meet the uncertainties of the future, and communicate to those they teach that the future is one of possibilities not of dead ends.

Somewhat paradoxically, although both teachers and other participants (users and providers) feel that "professionalism" is a key ingredient, the definition of what constitutes this professionalism seems to vary widely. Extensive training of teachers in method at the expense of in-depth study of disciplines, provision of sophisticated, pre-programmed materials, and constant controls, are seen to demotivate teachers and to contribute to an image of them as mere technicians or subordinates.

As several participants pointed out, when pupils or students are faced with teachers who do not themselves attach importance to continuous learning, they cannot be expected to value learning. As stated above, the very emphasis on more and better teaching materials and on the introduction of educational technologies, can have the effect of diminishing the perceived importance of the teacher. If the teacher is seen to be someone who is merely making available to learners pre-packaged and pre-digested learning materials, if the teacher is constantly subject to control through outside forces, her or his status cannot be enhanced. The solutions to this paradox, all agreed, can be found only by continual involvement of teachers in reflection, research, and decision-making concerning the teaching and learning process and in the management of these processes.

As one student observer put it, a good teacher needs first of all to communicate to pupils and students the joy of learning, and the significance of learning. The joy of learning can be brought forth only when it is possessed by the teacher, when the teacher is a model and exemplifies the values that he or she wishes to communicate. This message has particular impact, as it reinforced the emphatic statements in the Third Session concerning the teaching and learning of science as being primarily a discovery of the joys of learning.

III. Educational processes

Diversity, in both approaches and in solutions, seems to be central to the vision of education for the future. It is the growing realization that one of our key tasks for the future has to be the preservation of diversity among peoples, and the use of that diversity as a positive, dynamic factor in the cohesiveness among distinct groups that drives a significant part of reflection on educational policies today. The education function, at the crossroads of individual and social development, can play a major role in the way in which differences are perceived, used, and transformed into either positive or negative factors.

However, diversity should not and cannot be used as a justification for allowing the gap to widen between those who are able to profit from education and those who drop out of the system or fail. The tragedy in countries such as the United States and Canada where spending on education is far greater than anywhere else in the world and where the system fails to give a significant proportion of its children the most elementary tools for meaningful participation in society was underscored by several participants. The problem of school failure preoccupies

educators all over the world, and particularly so when quality education is universally available. The expectations of educators, and of communities, seem to play a preponderant role: children fail in school if they are expected to fail, and they succeed if they are expected to do so. Thus, a radical approach, that seems to work, is to change the view of what constitutes assets for learning, what constitutes failure, and, generally, to put greater emphasis on assumptions about success than on measuring failure. Objective factors that contribute to school failure were discussed, and include the seemingly increasing number of secondary school children who work while in school.

When education is organized along a monolithic model, with one broad set of assumptions about what constitutes a good system, and how one can judge success and failure within it, there cannot but be one dominant cultural and social model, outside of which all others are inferior. Similarly, when the end result of a successful educational itinerary is higher education, the concept of failure becomes very broad indeed. An organic, evolving view of education, as a series of reciprocal actions and interactions within society, that not only respects diversity but encourages and capitalizes on the richness it provides, can flourish only when decisions and implementation are devolved to local levels to a significant degree.

In this context the question of how decisions are made takes on its full importance. One is less concerned with the "best" or "optimum" answer to a question, than with the way in which the response has been found. Clearly the move towards more local participation in decision-making, and the felt desire (not always realized to the satisfaction of all) to ensure that teachers are intimately involved in the decisions they will have to carry out, are world-wide trends.

A. Methods, languages, multiculturalism

Multiculturalism in education can be said to have two different faces. One model accepts a mosaic of cultures exists, but aims, over time, to achieve adhesion to national norms over time. This model hopes to spread civic values, mutual respect for differences, and the blending of differences, while maintaining tolerance. The second approach, which encourages diversity, even competitiveness among various groups, brings forth a process of constant arbitration of what is taught in schools, how various interests are catered for. In this second model, management of the educational system as a whole is a sensitive matter, where an appropriate equilibrium has to be found in each instance between local involvement and decision-making, and the responsibility of national or regional authorities to maintain equity and broad access to education for both individuals and groups.

B. Decision-making

The shifting responsibilities for making decisions about education are a feature of education all over the world. Whereas in the recent past the State has had, broadly speaking, a monopoly over decisions concerning educational systems, a variety of new forces have come into play. On the one hand, private enterprise has diversified the provision of education for school leavers and adults to an astonishing, even some feel to an excessive degree in North America, with a resulting diversification in what is available that requires sophisticated information on the part of users. Decentralization of management of funds or of institutions, broader local financing by communities or groups, have led authorities to broaden the base for decision-making. The need to reinforce the status of teachers and to ensure a real professionalism requires greater participation and consultation with teachers in the establishment and implementation of educational policy.

Thus, the negotiation and arbitration among interest groups, as well as the establishment of educational policies, is becoming an increasingly complex process. Respect for the needs of various cultural and linguistic groups, particularly in situations where many different languages and cultures are present in the same, generally urban, area, makes the process a delicate one.

C. Educational technology

The availability of technology has created the very real possibility of an expanding gap between those who have access to sophisticated informations and communications systems, and who can use them, and those who have little or no access or capability. One can see that in many cases, technology is simply an added positive factor in the education of those who already had access to excellent facilities and opportunities. For deprived groups, or poor countries, where even elementary educational provision poses problems, the introduction of means that are expensive in the first instance (whatever the theoretical cost-benefits over time) is beyond reach.

In specific contexts, to meet the needs of people who cannot be reached by the standard educational system, or to transfer fairly specific kinds of knowledge or skills, technology provides the best, indeed, the only response possible.

For a time proposed as a panacea, the ultimate compensation for the inadequacies of teachers, schools, and educational delivery systems, educational technology is being placed in a more practical context, as a tool which used intelligently and in concert with a range of other tools can expand educational delivery, enhance quality, and increase access to information. First and foremost, technology should not be a substitute for the interpersonal contact that is essential to teaching and learning.

D. Lifelong education

Lifelong education in this discussion was used as a general term to include adult and continuing education, in-service training, and out-of-school professional education and training. In the numerous interventions that referred to the relationship between lifelong education and general education on the one hand, and lifelong education and employment, one could distinguish three types of issues and questions. The first of these concerns a fresh examination of why lifelong education is necessary and important. Lifelong education has clear economic aims and functions, in preparing people for jobs, for changing economic circumstances, in providing second chances for those who want to return to education after having left or completed initial education. Lifelong (adult) education fulfills a social role that goes beyond training in the strict sense and includes providing interpersonal contact, maintenance of personal dignity, and provision of a window on alternative futures. This second role is particularly important when unemployment is high and when the economic situation is bleak. Thus, profound changes in the way in which individuals will use their time, and a redistribution of time spent in work, out of work, and in education, as well as increasing physical mobility, challenge adult educators to find ways to bring forth in learners the ability to respond to these changes.

Secondly, the organization and financing of lifelong learning opportunities need to be, if anything, even more imaginative than the organization and financing of school and university education. In an area where there are numerous providers, both commercial and public, it is important to ensure that the needs of learners are taken into account, and that appropriate information on choices and opportunities is available.

Thirdly, the teachers and teaching methods of lifelong education differ considerably from in-school education for a number of reasons that include the difference in learning patterns between adults and children, the multi-disciplinary nature of much that is taught, the need in some circumstances to teach specific skills quickly and efficiently, the desire to impart problem-solving skills and attitudes, and the particular needs of people who come back to education after a "failure" in the formal system.

E. Mass media and violence in schools

Although it was not specifically on the agenda, the problem of violence remained a leitmotif throughout. Violence in schools is a particularly urgent problem, faced by teachers, pupils and parents alike, a symptom of the breakdown of the social contract in broad segments of contemporary society. And it has to be treated both on a daily basis, by individual teachers who cannot change the fundamental causes from which violence stems, but who must cope. It must also be faced in a longer-term way by decision-makers and by the society at large, in an attempt to recapture the dialogue and negotiation that can make consensus possible and corrective measures workable.

Mass media, essentially television, furnishes the principal context for most pupils in the industrialized world, and especially so in North America. They provide a common experience, a common language. However, viewers of television experience a world that is mainly one of conflict, tension and consumerism. These tensions, integrated and reproduced as attitudes, are seen by many as one of the main factors in school violence. Educators have a dual role, the first being to try to communicate to learners an image of the world that is both less uniform, and less conflictual; the second is to work, whenever possible, with media professionals in the development of codes of conduct and methods of communication that conform to a more positive image of and attitude towards society.

Thus, in conclusion, it was clear that the biggest challenge and the biggest dilemma facing education world wide is not the search for stimulating, creative ideas. Stimulating, innovative ideas and approaches have been found and proposed, and will continue to be so. The biggest challenge, then, is implementation. Creating a process whereby communities, regions and groups can face their own specific realities, and adopt and implement solutions that are appropriate for them, depends on expanding the circles of dialogue on the aims and visions of society. Such processes require true democratic participation, a sense of purpose and of direction on the part of individuals, and the feeling that their participation will and can make a difference.

IV. World Bank issues and priorities in education

The Commission heard a presentation by Nicolas Burnett of the World Bank of the main thrusts of the forthcoming World Bank paper on issues and priorities in education. This paper will be the first overall policy statement on education by the Bank since 1980, and with the Bank's preponderant role in international lending to education, it is expected that this paper will generate much discussion, and controversy.

The World Bank has already announced its focus on the reduction of poverty in coming years, and the educational policies are expected to fit into this broad focus. There will be a strong focus on basic education, because expansion of basic education, it has been demonstrated, makes good economic sense. Expanding access to education for girls and women also will find emphasis in the paper, for similar reasons.

In many parts of the world, educational spending has, according to the Bank, reached the upper limits of what is possible. Thus the very success of education, and increasing demand, have as a result an imperative change in the ways that governments operate educational systems. In these changes, some highlights can be pointed out: more emphasis on outcomes of education, not just on access; shifting resources for education to priority areas (such as basic education), and encouraging cost-sharing by users in other areas; priority to efficient use of resources, thus to improvement in management; less involvement by the national education authorities in the financing and management of activities that are not strictly educational (dormitories, cafeterias, and so on); continued look at teacher-pupil ratios and what influence they have on outcomes, so as to reduce costs by increasing class size whenever possible; and, finally, more participation in decision-making by those who are the users of educational services (parents, students, and communities)

V. Final report: main lines and approach

The Chairman presented to the Commission members an outline of the main issues and questions that, in his view could be developed in the final report. This outline was discussed in detail, and amended in view of the discussion. All members would reflect and comment on this outline during the next few months, and an in-depth discussion at the Fifth Session would permit agreement on the outline and on the method to be used for fleshing out each of the five chapters and the supporting documents and studies.

International Commission on Education for the Twenty-first Century

Working group on the process of education
Vancouver, Canada, 11 - 12 April 1994

Framework for discussion

The globalization of contemporary relations at every level of human existence and the speed of technological change are making contemporary economic, political and social life increasingly complex, and are a source of anxiety and destabilization for large numbers of people. Gaps between "haves" and "have-nots" both persist and grow; what is more, these gaps are more keenly perceived because information and communication media disseminate cultural values and lifestyles of the rich and the crises of the disempowered and poor over the whole globe.

Furthermore, sustainable development all over the world will be dependent on a more equitable distribution of intellectual qualifications (science) professional qualifications (employment and competitiveness), and social qualifications (ethics), which can favour both smooth adaptations to change and, especially, the mastery of change in a democratic framework on the scale of each national and of the world.

In this context, education for the twenty-first century cannot conceived neither as merely a system for the reproduction of existing knowledge and know-how, nor as a modernistic system for the transmission of information in real time.

So as to avoid the problems related both to the inertia of strictly traditional systems and the pervasiveness of contemporary communications systems, education needs to be adapted to respond to changing requirements:

- The first of these is **quality** in the teacher-learner relationship. The role of the educator should be neither that of an instructor nor that of a journalist. The role of the teacher is to introduce learners to knowledge, and to arouse and guide the curiosity and the intelligence of learners towards openness and understanding of the physical world, of other human beings and of themselves, by using means that range from the most traditional (narration) to the most contemporary (multimedia) and including written materials.

- The second of these is **diversity** in the institutional forms and places of education and in the educational methods used, in order to ensure that the educational responses to the needs of different groups and varying constraints are pertinent ones.

- The third is the need for education to be **comprehensive in both space and time**: individuals can have access throughout their lives to the type of education that corresponds to their own desire and/or to requirements of their jobs. Availability of education on that scale would in all likelihood require participation of all in the provision of education, each individual teaching and being taught in turn.

These requirements emphasize and undoubtedly reinforce the crucial roles of formal systems and on professional educators; however, they also place new demands on the other actors in the provision of education. Both for technical education and for civic and social education, both for children and for adults, the functions of the economic and social sectors, of families and of communities and the establishment of links between different types of institutions and services are indispensable in order to meet the demands for education, both in terms of quality and in terms of quantity.

Thinking about the roles and processes of education for the twenty-first century poses three categories of questions about,

1. the educational process itself and the adaptability of systems;

2. the teaching profession, its requirements, its future and status;

3. the expansion of non-formal education and lifelong education.

I. Educational processes and systems: methods, languages and technologies

On a practical level, educational systems must respond to the problems raised both by mass education and by the wide range of functions they must fulfill in increasingly multi-cultural societies. School failure calls into question both the methods used and their effectiveness. New information technologies present new challenges. As part of the general examination on the future developments of systems, many issues need to be looked at.

- Besides textbooks, what are the minimum educational materials (including technological support systems) that can enable successful teaching at primary, secondary and technical levels? How are tradeoffs decided upon between teacher-pupil ratios and equipment?

- How do different systems work to fight against school failure?

- How is the transition made in different systems between primary and secondary education, and between general education and vocational education?

- In a multi-cultural environment, how can teaching in and of several languages be organized? How does one reconcile, or find an appropriate balance between identity and integration?

- How should testing methods be evolved? What are the decisions to be made in finding the right balance between national standards, evaluation of learning, and control of access to higher levels?

- How can partnerships between the educational sector and the economic sector be organized and managed, in particular for initial technical and vocational training and education (apprenticeship, the alternation between education and work, short courses, structure of qualifications, etc.).

II. Actors: professionals of the education profession, and those from outside the formal system

Teachers and trainers are key strength of educational systems. Their initial and in-service training, as well as their roles in society, are strategic aspects of the adaptation of education to quantitative and qualitative demands. In this context, one can look at:

Initial training and in-service training

- How can one achieve an appropriate balance between content and method in the training process? How can one ensure that methodology, group work and practical experience are appropriately included in the training process?

- How can in-service training improve not only teacher competence but also motivation? How can one make the appropriate links between in-service training, performance evaluation, and careers?

Institutional responsibility for teacher training

- What are the respective roles and responsibilities of higher education institutions and specialized teacher training institutions? How are teacher trainers trained themselves?

- What links are necessary between the training of adult educators and the training of teachers for the formal system?

Teachers' careers - the roles of unions or associations of teachers in the management of careers and in the improvement of the system

- In evaluating teacher performance, what are the main objectives, and what methods have given results both in terms of evaluation for advancement in terms of careers and salaries and in terms of improving the educational system?

- What is the role, potential and real, of unions in influencing the quality and type of training of teachers and in the vitality of educational systems? Are these two types of concerns compatible with each other?

The relationship between different types of teachers

Given the broad differences between primary- and secondary-school teachers, between secondary-school teachers and teachers of higher education, between teachers in general education and in technical education, between professional teachers and non-professional teachers,

- What can be the roles of teacher training institutions, both in initial training and in-service training, for a better understanding between these categories?

- How can one ensure participation of teachers of all kinds in the development of appropriate curricula?

The status of teachers and teacher trainers

- What can be done to improve the appeal and status of the teaching profession and enable it to respond to the increasing needs and demands placed upon it by the educational system? This question can be divided into a series of elements, including the management of human and material resources within educational systems; the recruitment and careers of educational personnel; methods of training, retraining, and evaluation; and working and living conditions, including salaries.

- What part do and should teachers play in decision-making concerning school organization, curricula, and their own roles in the educational process?

- What experiences have proved successful in involving non-professionals in the teaching-learning process?

III. Lifelong learning and recurrent education

There is general agreement on the need for lifelong education that can enable each individual both to enhance the education he or she received in the initial stages, or to compensate for lacunae in that education; furthermore, in developing countries, the strong probability that reduction in time worked will pose a new problem in terms of the way time is divided between work, leisure and further education.

Putting this general agreement into practice is a challenge a number of countries are currently facing.

- What are the lessons, positive and negative, from the community college model that could speak to policy makers in other parts of the world?

- How can one target recurrent education programmes for those who need them most? What are the most significant types of lifelong learning experiences that reach those who have previously failed in educational systems?

- In societies undergoing massive change in the employment structures, how can recurrent education systems contribute to facilitating change and adaptation (both for employment and for leisure) of adults?

- What types of educational programmes show results with under-educated, unemployed youth (including those who are in prison or who have served prison sentences)?

- Should recurrent education programmes be supported by the state through support for the programmes or through support for individuals to enroll in programmes (funds, vouchers, release time, etc.)?

- In recurrent vocational training, what should be the equilibrium between formal training and on-the-job training?

- Who should run recurrent education programmes? What is the role of the state in monitoring, offering, assuring quality, and subsidizing them?

LIST OF PARTICIPANTS

Working Group

Mme Monique Bégin
Co-présidente
Commission royale sur l'éducation de l'Ontario
Toronto (Ontario) Canada

Mr Nicholas Burnett
The World Bank
Washington (D.C.) U.S.A.

Mr Glen Farrell
President,
Open Learning Agency
Burnaby (British Columbia) Canada

Ms Mary Hatwood Futrell
President
Education International (EI)
Brussels, Belgium

Ms Janet E. Halliwell
Chair, Nova Scotia Council on Higher Education
Halifax (Nova Scotia) Canada

Mr Alan King
Professor of Philosophy of Education
Director, Social Program Evaluation Group
Queen's University
Kingston (Ontario) Canada

Mme Diane Laberge
Directrice générale
Institut canadien d'éducation des adultes
Montréal (Québec) Canada

Mr Henry Levin
David Jacobs Professor of Education and Economics
Stanford University
Stanford (CA) U.S.A.

Mr William F. Mackey
Research Professor
Centre international de Recherche en aménagement linguistique
Université de Laval
Sainte-Foy (Québec) Canada

Mr James A. Maraj
President
Commonwealth of Learning
Vancouver (BC) Canada

Mr Noel McGinn
Harvard University
Institute for International Development
Cambridge (Massachusetts) U.S.A.

Mr Paul Pallan
Assistant Deputy Minister
Student Serices Department
Ministry of Education
Victoria (B.C.) Canada

M. Jacques Proulx
Vice-rectorat aux relations extérieures
Université de Sherbrooke
Sherbrooke (Québec) Canada

Ms Ana Maria Quiroz
Secretary-General
International Council for Adult Education
Toronto (Ontario) Canada

Mr Robert Tabachnick
Professor of Curriculum and Instruction
University of Wisconsin
School of Education
Madison (Wisconsin) U.S.A

Mr Mark Thompson
Faculty of Commerce and Business Administration
University of British Columbia
Vancouver (B.C.) Canada

Ms Judith Tobin
Director, Strategic Issues
TV Ontario (TVO)
Toronto (Ontario) Canada

Mr A. E. Wall
Dean, Faculty of Education
McGill University
Montreal (Québec) Canada

Hearings

M. Robert Bisaillon
Président
Conseil Supérieur de l'Education du Québec
2050, boulevard René-Lévesque Ouest
Sainte-Foy (Québec) Canada

Mr Goërie Delacôte
Executive Director Exploratorium
3601 Lyons Street
San Francisco (CA) U.S.A.

Ms Mary A. Hepburn
Vinson Institute of Government
University of Georgia
Athens (GA) U.S.A.

Ms Verna Kirkness
Former Director
First Nations House of Learning
Longhouse
University of British Columbia
Vancouver (B.C.) Canada

Secrétariat/Secretariat
UNESCO, 7 place de Fontenoy / 75352 Paris 07 SP - France
tél : (33-1) 45 68 11 23 / fax : (33-1) 43 06 52 55 / E-Mail : EDXXI@FRUNES21.BITNET